

## **REMARKS/ARGUMENTS**

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith. The present amendment is being made to facilitate prosecution of the application.

### **I. STATUS OF THE CLAIMS AND FORMAL MATTERS**

Claims 1-21 are pending in this application. Claims 1, 8, 12 and 19-21 are independent and hereby amended. No new matter has been added. It is submitted that these claims, as originally presented, were in full compliance with the requirements of 35 U.S.C. §112. Changes to claims are made simply for clarification and to round out the scope of protection to which Applicant is entitled.

### **II. SUPPORT FOR AMENDMENT IN SPECIFICATION**

Support for this amendment is provided throughout the Specification as originally filed and specifically at paragraphs [0103], [0111], [0112] and Figs. 4-5 of Applicant's corresponding published application. By way of example and not limitation:

[0103] The recording/reproducing unit 120 is composed of a drive interface 121, a data processor 122 for converting the data format of video content data and metadata into a data format suitable for recording/reproducing these data on the optical disk 60, a pickup control 123 for controlling a laser generator/receiving section (not shown) for reading/writing video content data and metadata on the optical disk 60, a loading mechanism 124 for loading/unloading the optical disk 60, a loading mechanism controller 125 for controlling the loading mechanism 124, and a mechanism interface 126 for passing control signals between the loading mechanism controller 125 and the data bus 111, for example.

[0111] The metadata extracting section 142, configured as an extracting section associated with the present embodiment, searches for, reads, and extracts the metadata recorded to the optical disk 60, automatically or in response to user instruction.

[0112] To be more specific, when the optical disk 60 is loaded on the recording/reproducing apparatus 100 for example, the metadata extracting section 142 starts the recording/reproducing unit 120 to automatically search the storage area in the optical disk 60 for metadata and their storage locations. Also, the metadata extracting section 142 can read the detected metadata partially or entirely.

FIG. 4

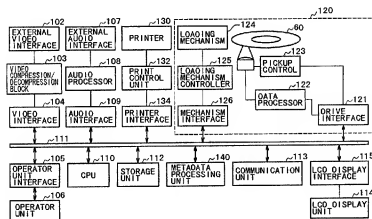
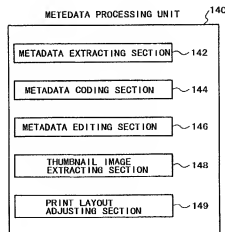


FIG. 5



### III. RESPONSE TO REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1, 3, 4, 7, 8, 10-12, 14, 15, 18 and 21 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,833,865 to Fuller et al. (hereinafter, merely “Fuller”) in view of U.S. Patent No. 7,295,755 to Ostermann et al. (hereinafter, merely “Ostermann”) in view of U.S. Patent No. 6,476,817 to Harper et al. (hereinafter, merely “Harper”).

Claims 2, 5, 6, 9, 13, 16 and 17 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Fuller in view of Harper and further in view of U.S. Patent No. 5,745,102 to Bloch et al. (hereinafter, merely “Bloch”).

Claims 19 and 20 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Fuller in view of Ostermann in view of Harper and further in view of Bloch and U.S. Patent No. 6,873,435 to Tehranchi et al. (hereinafter, merely “Tehranchi”).

Claim 1 recites, *inter alia*:

...wherein **when performing automatic extraction, the extracting section automatically, in response to loading the storage medium, starts to search** storage area and storage location for the metadata in the storage medium... (Emphasis added)

Applicant submits that neither Fuller nor Ostermann nor Harper, taken alone or in combination, that would disclose or render predictable the above-identified features of claim 1. Specifically, none of the references used as a basis for rejection discloses or renders predictable “wherein **when performing automatic extraction, the extracting section automatically, in**

**response to loading the storage medium, starts to search** storage area and storage location for the metadata in the storage medium,” as recited in claim 1.

Specifically, the Office Action (sec page 4) concedes that Fuller does not disclose wherein when performing automatic extraction, the extracting section automatically starts a pickup control for controlling a laser generator to search storage area and storage location for the metadata in the storage medium in response to loading the storage medium, but asserts that Ostermann discloses the above mentioned features, and refers to Ostermann, col.1, line 48-col. 2, line 33, which are reproduced as follows:

*Ostermann, col.1, line 48-col. 2, line 33:*

The invention is based on the recognition of the following fact. Given the availability of metadata multiplexed into the multimedia content itself; it is possible to access the metadata directly from the bitstream, like the DVB-SI information directly from the MPEG-2 transport stream. However, for recorded data like a broadcasted DVB television signal which is recorded on a disc after reception, a search based on this metadata would require a full search through all multimedia content stored in order to collect that metadata. This is both inefficient and time consuming.

Accordingly, one aspect of the invention makes metadata information multiplexed into the multimedia content available for automatic and/or electronic access, in particular for metadata based searches, browsing, and presentation engines.

Accordingly, another aspect of the invention advantageously extracts metadata from the multiplexed multimedia content. The extracted metadata are gathered and analyzed to form metadata entities, which are amended by a reference to the content itself. A descriptor stream is formed from the resulting pairs of metadata entities and references to the content and is stored separately from the files comprising multimedia content.

In this way, the metadata attached to the multimedia content allow for efficient **automatic content referencing**, content location, and **automatic access**, and electronic access.

Advantageously, the invention can be used for accessing metadata addressing a file or parts of a file recorded on a storage medium. In this case, processing the metadata is performed during a recording process of the files comprising multimedia content. Especially, for data of a recorded MPEG-2 transport stream, **this process allows for the accessing of metadata without a need to reparse the entire stream.**

The processing of the metadata can be performed during the recording process of the files or file parts. This has the advantage that the metadata are immediately available for metadata-based searches.

Accordingly, another aspect of the invention advantageously processes the metadata in an offline pass after the recording process, e.g. if an MPEG transport stream is recorded as it is without demultiplexing of the elementary streams.

Accordingly, another aspect of the invention advantageously completes the metadata extraction from the multimedia content multiplex by retrieving metadata from another source, e.g. by metadata transmitted by a service provider via internet.

Accordingly, another aspect of the invention advantageously supplements metadata extracted from the multimedia content multiplex by input from the user, e.g. using a keyboard. This allows the user to make personal annotations.

Applicant submits that Ostermann discloses automatic content referencing and automatic access allow for the **accessing of metadata without a need to reparse the entire stream.** However, Ostermann's accessing of metadata **without a need to reparse the entire stream** is different from Applicant's **automatically, in response to loading the storage medium, starting to search for the metadata.** Thus, Ostermann fails to disclose or render predictable "wherein when performing automatic extraction, the extracting section

**automatically, in response to loading the storage medium, starts to search** storage area and storage location for the metadata in the storage medium,” as recited in claim 1.

Furthermore, this deficiency of Ostermann is not cured by the supplemental teaching of Fuller or Harper.

Therefore, Applicant submits that independent claim 1 is patentable and respectfully request reconsideration and withdrawal of the rejection.

For reasons similar to, or somewhat similar to, those described above with regard to independent claim 1, independent claims 8, 12 and 19-21 are also patentable, and Applicant thus respectfully requests reconsideration of the rejections thereto.

#### **IV. DEPENDENT CLAIMS**

The other claims in this application are each dependent from one of the independent claims discussed above and are therefore believed patentable for at least the same reasons. Applicant thereby respectfully requests reconsideration and withdrawal of rejections thereto. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

#### **CONCLUSION**

Because Applicant maintains that all claims are allowable for at least the reasons presented hereinabove, in the interests of brevity, this response does not comment on each and every comment made by the Examiner in the Office Action. This should not be taken as

acquiescence of the substance of those comments, and Applicant reserves the right to address such comments.


In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited reference, or references, it is respectfully requested that the Examiner specifically indicate those portions of the reference, or references, providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicant respectfully requests early passage to issue of the present application.

Respectfully submitted,

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